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AND

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RELATING TO

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INSECTS, WORMS, ZOOPHYTES, &c.

THEIR HABITS, FOOD, RETREATS, OCCASIONAL APPEARANCE,
MIGRATIONS, NESTS AND YOUNG.

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PREPAYMENTS for 1866.—It is the usual time to remind Subscribers that the prepayment for 1865 has expired and that for 1866 has become due. The prepayment for the '**Entomologist**' has also expired, and the Twenty-two Numbers that have appeared will be issued as a Volume, so soon as the Index can be completed: the price will be Seven Shillings.

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THE ENTOMOLOGIST. — The December Number contains:— Natural History of Australian Ants, *B. T. Lowne.* Do Male or Female Lepidoptera first emerge from the Pupa? *Edwin Birchall.* Edusa in Cornwall, being an account of the capture of 935 specimens, *Stephen Clogg.* Colias Edusa in November, *Captain Hadfield.* Edusa and Hyale at Exmouth, *J. W. B. Bell.* Edusa at Eastbourne, *John Dutton.* Lathonia at Aldeburgh and Bury, *A. H. Wratislaw.* Lathonia in the Isle of Wight, *Alfred Owen.* Lathonia at Dover. Vanessa Antiopa near Tenterden. Atropos in Cornwall, *Stephen Clogg.* Atropos at Eastbourne, *John Dutton.* Deilephila lineata near Biggleswade, *J. W. Whitaker.* Lineata in Cumberland, *J. H. Tillman.* Chærocampa Celerio at Taunton, *William Bidgood.* Celerio at Southsea. Celerio near York. Macroglossa Stellatarum in Piccadilly, *Stephen P. Smith.* Stellatarum at Hull, *G. Norman.* Liparis Chrysorrhœa larva feeding on Blackberries, *T. Wilkinson.* Sterrha sacraria in the Isle of Wight, *Alfred Owen.* Sacraria near Horsham. Sacraria at Sugar. Sacraria bred. A new British Acidalia. Eupithecia consignata at Leominster, *Mrs. Hutchinson.* Heliothis peltigera larva feeding on Common Marigold, *J. S. Dell.* Larvæ of Epunda lichenea and Acidalia incanata, *Rev. Joseph Greene.* Epunda lutulenta in Gloucestershire, *Rev. E. Hallett Todd.* On Breeding Lepidoptera in confinement, *John R. S. Clifford.* Necrobia violacea in a Brick Wall, *W. West.* On the Hearing of Insects, *G. Norman.* Together with seven lists of Duplicates.

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Life-Histories of British Insects. By EDWARD NEWMAN.

PYRAMEIS CARDUI (PAINTED LADY).

THE egg is laid singly on Carduus arvensis (field thistle), generally towards the end of June, and generally also low down on the plant, and the young larva emerges therefrom in eight or nine days: it soon draws together the points of the thistle-leaves with a very slight web, more like that of a spider than the usual webs concealing Lepidoptera, and thus, very imperfectly concealed, it feeds with great voracity, and grows so rapidly as frequently to be full-fed in fourteen days, when it rests in a straight position, but falls from its food-plant, forming a compact ring if annoyed. As the larva increases in size it ascends towards the flower-head, leaving its prior domicile, so that half-a-dozen of these dwellings may sometimes be found on one plant, but two larvæ rarely, if ever: the needles or spines of the thistle-leaves, always rejected as food, are suspended in the web; the excrement of the larva is also found abundantly in the web, showing that, in a sanitary point of view, Pyrameis Cardui stands rather low. Head fully as wide as the 2nd segment, scabrous, the crown bilobed, each lobe emitting several warts and numerous bristles. Body with the segmental divisions clearly marked, and having a lateral skinfold not very strongly pronounced; 2nd segment with numerous short dorsal spines, each of which emits a terminal bristle; 3rd and 4th segments each with two longer lateral spines emitting lateral branches; 5th to 12th, both inclusive, have seven branched spines, one of them mediodorsal and slightly in advance of the rest, the third on each side is on the skinfold: below the skinfold and above each clasper is a conspicuous sesquialterous wart emitting curved bristles: the 13th segment has four spines placed in a quadrangle, the posterior pair larger and more conspicuous than the anterior pair; all parts of the body emit scattered hairs. Colour of the head dull black; dorsal surface of the body black, the spines paler with black tips and branches; the hairs white; the skinfold separating the dorsal and ventral surface yellow; ventral surface, legs and claspers pitchy red; spiracles above the skinfold pale in the middle; then surrounded with black, then again with paler. In many individuals the dorsal surface is irrorated with yellowish white dots, which are most conspicuously collected in a double series along the back, interrupted by a narrow mediodorsal stripe intensely black; in these examples the bulbous root of each spine is pitchy red. When full fed the larva spins a small but dense patch of silk on the surface of any object

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within reach, and, suspending itself therefrom by means of its anal claspers, changes to a pupa, which has the head broadly truncate, but not eared; the dorsum of thorax produced into a median point, and having a point on each side in advance of the median point, and two more prominent points on each side on the margin of the wing-cases; the abdomen has three series of obtuse points, the mediodorsal series consisting of six points, the lateral series of eight points, the anal extremity produced into a slightly curved beak-like process, which is terminated with a fringe of minute hooks, by which it is suspended. The colour is ochreous-gray, striped with dingy brown, and adorned with gold reflections; the dorsal points are golden metallic-yellow; there is a hastate black mark between the tips of the wing-cases, apparently covering the extremity of the maxillæ; the cases of the antennæ have a double series of black dots; the anal beak has on each side a conspicuous black stripe, and various parts of the wing-cases and abdomen have distinct black dots. The pupa-state lasts about fourteen days, and the butterfly appears about the 4th of August: the sexes appear to take little notice of each other, but may frequently be seen frequenting gardens or settled on thistles, teazles, &c., by the road-side, until the end of October, when it retires to its winter-quarters, again to appear in April, May and June: copulation then takes place, and oviposition follows during eight or ten succeeding days. I am indebted to Mr. Huckett (1863) and Mr. Pristo (1865) for a supply of the larvæ of this beautiful species.

ODONESTIS POTATORIA (THE DRINKER).

The eggs are laid in July and August on Triticum repens and other grasses which abound in our hedge-rows; they are of an oblong form, depressed on the top, and having a median dot or spot surrounded by a black line; they are covered with an adhesive fluid, by which they instantly become attached to any object they may touch: in confinement six or eight of these eggs are deposited in close proximity, often in contact. The young larva emerges in August or September, and feeds on grasses, but makes but little progress in growth before winter: it seems to have a great love of rest, and throughout October I have frequently observed it on the extremity of a flowering culm of some grass from which the seed has fallen, and which it seems to have ascended for the sole purpose of enjoying the warmth of the sun's rays. It rests in a nearly straight position, with the head somewhat tucked in and the 3rd and 4th segments slightly elevated: when annoyed it rolls itself in a compact ring and falls from its food-plant among the stems and blades of grass, and is then extremely difficult to find. Head slightly narrower than the body, the 2nd segment having a conspicuous and almost spherical tubercal on each side, the effect of which is greatly to increase the apparent breadth of this segment, making it appear much broader than the head; these tubercles emit long projecting hairs: the 3rd and 12th segments have each a mediodorsal erect compressed tuft of hairs, that on the 3rd segment is double and erect, that on the 12th single and inclining backwards. Colour of the head gray, with longitudinal black stripes, which approach on the crown but recede from each other on the face; 2nd and 3rd segments orange on the back, the double dorsal tuft on the 3rd having the anterior portion black, the posterior portion orange, the remaining segments with a mediodorsal series of blue-gray spots, each irrorated with minute black specks and alternating with pairs of black spots, the narrow interstice between each pair being bright orange: exterior to the mediodorsal blue series is a series of orange spots, and exterior to this a mixed series, blue-gray, black and orange, the arrangement of the colours in indistinct oblique lines; the spots below this are orange: ventral surface, including the claspers, orange, with a medioventral series of black markings: legs nearly black. After having hybernated at the roots of grasses during the whole of the inclement season, the larva may again be seen in the spring sunning itself on the culms, but remaining during the day in less exalted situations, prefering those ditches so often without water by the side of hedge-rows, yet abounding with dew-drops, to which these larvæ may often be observed to apply their mouth and imbibe the transparent fluid slowly, sedately and with evident enjoyment, a practice whence probably originate the names of "drinker" and "potatoria:" this propensity to indulge in drink may readily be tested in the breeding-cage by dropping water near the creature's head, when it will turn to the seductive beverage, and enjoy it exactly as when at liberty. The larva is full fed during the first and second weeks in June; it is then more than two inches and a half in length, and thick in proportion: when annoyed it rolls itself in a most compact ring and falls amongst the grass, where, however, it is scarcely likely to escape observation on account of its large size. Head not so wide as the 2nd segment, which is dilated on each side laterally by the presence of two tubercles, of which the upper is the more preminent, the lower broader and less conspicuous; body very convex above, rather flattened beneath; it has a mediodorsal tuft of long converging hairs on the 3rd and another on the 12th segment; the first of these is erect, the second obliquely directed backwards; on each side of the back is a series of short erect dense fascicles of hair; in each series are twenty-four of these fascicles, that is, one on the 4th segment, two on the 5th, three each on the 6th, 7th, 8th, 9th, 10th and 11th, two on the 12th, and one much smaller on the 13th: besides these there is on the 9th, 10th and 11th segments a smaller fascicle of similar hairs very slightly inclined forwards; on each side on a line with the spiracles is another series of less conspicuous tufts; every part of the body emits in addition long silky hairs, which, however, are so slender, weak and scattered as not in any degree to conceal the tufts already described. Colour of the head dingy gray-brown, with curved black stripes, which approach on the crown, and recede in curves from each other on the face; these stripes are composed of exquisitely fine dots and lines: dorsal surface of the body purplish black, the anterior mediodorsal tuft brown, the posterior black, the dorsal series of short tufts black, the lateral series white; the long silky hairs over the whole body brown; outside each dorsal series of black tufts is a broad stripe-like series of minute polymorphous orange markings: the lateral surface of the body is intensely black, variegated with vivid orange and white markings, dispersed in oblique but irregular order: spiracles long, narrow and almost white; ventral surface black, adorned with two yellowish lateral markings at each junction of segments and two longitudinal stripe-like series of scattered markings: these commence at the 5th and are continued to the 12th segment; legs brown, with paler tarsi; ventral claspers black, with four longitudinal pale lines on each; anal claspers almost black, with one such pale line on each. Towards the middle of June it spins a tough leathery shuttle-shaped cocoon, composed of yellowish silk largely interspersed with its own hairs; this cocoon is attached longitudinally to the flowering stem of a grass, and is generally placed in some exposed situation: within this cocoon it changes to an oblong brown pupa, very blunt at both extremities, from which the moth makes its escape in July.

EDWARD NEWMAN.

Life-History of Phorodesma bajularia.—Eggs laid by captured female in pill-box, June 23rd, 1864, large in proportion to the size of the insect, oval, brownish, finely reticulated: hatched July 11th. Food, oak. Larva at first brownish, mottled, hairy; four bunches of green and white atoms along each subdorsal line, and a bunch on anal segment, the gnawings of oak. Until I had ascertained, by watching a young larva emerge from the egg, that it came out naked, I could scarcely believe that these ornaments were not part of itself, as every individual was so adorned, though apparently only just hatched. The one of whose birth I was an eye-witness was immediately removed to a separate box, and supplied with the petal of a rose, from which, in a few minutes, it made up nine rosy "favours," and fastened them one by one, with perfect regularity, upon its back. I then restored the rosy-favoured to its green-and-white-favoured companions, and it very soon joined them in gnawing away at the oak-leaves, for nourishment now, having first satisfied the (shall I not say?) natural craving for dress. They fed on slowly till the cold weather began, when they fixed themselves to the under side of the oak-twigs, in a doubled-up posture, and looked like little round tufts of vegetable *débris*. I kept them through the winter in an arbour open to the air, and did not lose one. In April I put into their flower-pot some fresh twigs of oak, and split some of the buds. April 18th, they began to bore round holes in the buds that had *not* been split, and to clean out the inside, seeming quite to despise my rough endeavours to help them. When they were nearly full fed, I made the following description of one of them, having stripped off the tufts on one side for the purpose:—Body flattened, attenuated towards head, which is of the same colour as the body, reddish brown. Dorsal line and wavy subdorsal line fuscous, a row of dark fuscous spots underneath the spiracles. On each segment, from five to nine (both inclusive), is a pair of dark brown papillæ, one outside each subdorsal line, with a dark spot on the apex, furnished with a single hooked bristle (easily seen through a good glass), and also a pair on the twelfth segment, to which the gnawings are attached with silk. Being very curious to know how this was done, I put the half-undressed individual just described into a box covered with glass, together with an oak-bud, just bursting into leaf. After surveying his new abode, previous to eating, he firmly fixed himself by his claspers (anal pro-legs) to the bottom of the bud, took hold of one of the brown scales encasing the bud by the top with his jaws, and drew it with some force towards him, with the intention of pulling it off, if loose (as some which he afterwards tried were); but as it was still firmly fixed at its base, after two or three strong pulls, he began to gnaw it off at the base; having effected which, he took it between his legs, turned it invariably with the convex side towards him, which he overlaid with silk, and then, taking it in his jaws, turned back his head and fixed it by the convex side to one of the naked papillæ, not contented with hooking it on, but winding silk about it at the point of connection. After putting on two or three pieces, he refreshed himself by eating for a few minutes. The new piece was not always put on a vacant papilla, but sometimes fastened with silk to another piece on a papilla already covered. The larva, at this stage of its existence, used almost exclusively the brown scales of the buds, probably as being so easily detached, but did not seem to care whether they were long or short, rounded or pointed; consequently the *tout ensemble* had certainly a ragged and untidy appearance, compared with the neatly-cut and symmetrically-arranged habiliments of earlier life. The time, too, taken by the full-grown larva over dressing was much greater than that required by the active infant. Although it only had one side to dress, it took some hours about it. I began my experiment about 6 P. M., and the dressing was not over at 10; but next morning I found all the papillæ covered. Every time the larva changed its skin the dress of course was changed with it; and when, on May 25th, it changed to pupa (of the same colour as the larva) it was enclosed in a very loose network, formed of the bits that covered it as a larva, fastened together with silk, and attached to the under side of a twig. The first imago came out on June 20th.—*Rev. E. Horton* (*Powick, near Worcester, July,* 1865) *in the* '*Entomologist's Monthly Magazine,*' ii. 91.

[I am indebted to Mr. Horton for a supply of these most interesting larvæ, as well as for particulars of their economy, in order that I might write the life-history of the species: this was readily done, but a delay in publication was unavoidable. My friend has now relieved me of the duty, by publishing the preceding particulars from his abler pen: I am sure no one will regret a delay which has led to so gratifying and instructive a result. It is impossible to estimate too highly the advantages accruing from the labours of Mr. Hellins, Mr. Buckler and Mr. Horton in this branch of our Science, and I can scarcely find words to express my high appreciation of their services. How long was I alone in the task of thus working out these life-histories—a task which, single-handed, would never have been accomplished by me.—*Edward Newman.*]

Life-Histories of Sawflies. Translated from the Dutch of M. Snellen van Vollenhoven, by J. W. May, Esq.

(Continued from page 9754).

SELANDRIA PUSILLA, *Klug.*

For the imago:—*Dr. F. Klug, Die Blattwespen nach ihren Gattungen und Arten in Schriften der naturforsch: Freunde zu Berlin. Tenthr.* Fam. II. A. Nos. 50 & 62. *Hartig, Blatt- und Holzwespen*, p. 267, No. 2.

Larva undescribed.

Selandria nigra, nitida, alis infuscatis, cellula lanceolata pedunculata, nulla cellula media in alis posterioribus, genubus, tibiis, tarsisque dilute brunneo-flavis.

This insect is much less known than the preceding. I do not find it mentioned by any other authors than Klug and Hartig, while the larva is entirely undescribed.

It is, probably, a very local insect, being only here and there met with in any numbers; its small size may also have had some share in withholding entomologists from a more general acquaintance with it. However, if it is as common in other places as it was in my garden at Leyden, its small size would certainly not have protected it from observation, the singularity of its habits being sure to betray it. Every year, in the month of May, the rose-bushes in the garden are beset with little shining black sawflies. In the sunshine in the middle of the day the males are particularly lively, the females somewhat less active. In the evening the males are no longer to be seen, and the females are resting without motion among the yet unfolded leaves.

Some days after these little creatures were first seen the females were observed to be laying their eggs. They make a longititudinal opening with the saw in a young leaf close to the margin, and then deposit the egg between the two surfaces of the leaf; the wound thus made is almost invisible, the egg quite so, the only indication of the place being a slight swelling. I was not able to extract an egg from the leaf, but from the abdomen of a female, which I cut open, I obtained an egg-mass containing nine elliptical eggs, opaque-white, and without markings.

In a short time the leaves are seen to curl up underneath from the margin inwards, so that at last the whole leaf looks like a midrib with a curl at each side; fig. 7 represents a twig with leaves in this state, seen from below, at *a* is a female half concealed by the border of the leaf. It seems to me to be probable that after depositing the egg the female proceeds to make little incisions in the under side of the leaf, beginning at the margin, by which means the growth in the epidermis of that part of the leaf is retarded; but as the growth of the uninjured upper surface continues in the regular way, the margin extending itself only on that surface must necessarily be bent round underneath, and thus the leaf becomes rolled up.

I have met with females of this species on the under sides of leaves until late in the month of May.

On the last of that month I carefully examined one of the curled-up leaves, and found therein a very small caterpillar, not more than three millimetres long (fig. 1). This little creature was yellowish white, nearly transparent, with a trace of green. The globular head was somewhat grayish, the eyes being black, the trophi ferruginous; with a strong glass some hairs could be seen on the body. I over and over again counted twenty-two legs; this appeared to me remarkable, as Selandria æthiops, belonging to the same division of the genus, has only twenty legs in the larva. The terminal legs were not applied to the surface, as shewn in fig. 1.

On the 8th of June I again examined some leaves, and found larvæ of more than twice the above-mentioned size, namely, 8 millimetres (may we from this draw the conclusion that these larvæ grow remarkably fast?). The latter larvæ were rather more strongly coloured, the anterior part of the body being brownish yellow, the posterior greenish (fig. 2). On examination with a lens, it was seen that each segment of the body was divided into five folds, of which the first two bore six little knobs, on each of which were two little stiff hairs, the last two folds were smooth (fig. 5). The head was now distinctly greenish brown as far as the little antennæ, the remainder yellowish white; the margin of the clypeus and the lower part of the frontal suture were also of this colour. The head was rough anteriorly, and, for so far as the brown colouring extended, thinly covered with pale brown hairs. The eyes were seated in round black spots; the upper jaws were yellow at the base, pale brown further on.

A short time after this I found no more larvæ on the rose-leaves, nor could I perceive any pupæ: I thus came to the conclusion that the larvæ had descended from the leaves and gone into the earth, for the purpose of passing through the pupa state in that situation. I had placed in a glass some rose-twigs having curled-up leaves; at the bottom of the glass I had put a layer of earth, and in this I found some cocoons: they were very strongly made, being spun inside, and consisting of grains of sand on the exterior; I have figured one at fig. 5. I subsequently, however, failed to find any imagos in the glass in question, getting nothing but parasites.

It will now be objected that this life-history is incomplete, and I am ready to acknowledge that much is wanting. I have no certain proof that the larva above described is the larva of this insect: there is always the possibility that the larva of Selandria pusilla is totally different in habits and appearance: true, but I have found the probability of identity so great that I cannot but regard it as almost amounting in value to direct proof. Not a single one, but a hundred and more imagos of the same species make incisions in the rose-leaves, which, in consequence, curl up; in the curled-up portion are found not one, but more than a hundred larvæ, all resembling each other; must we not conclude that the larvæ so produced are the brood of the imagos in question?

The imago (fig. 6) is shining black. Head broad, with very dark brown eyes; antennæ black, but little longer than head and thorax together; palpi obscure yellow. The back and sides of the thorax are smooth shining black, as is also the abdomen, the ventral surface only having some silky pubescence. The wings are blackish, as if smoked, the posterior pair being somewhat paler. The costal nervure and the stigma are broad and black; the course of the nervures, as is sometimes the case with the smaller species of Selandria, is rather inconstant. All the coxæ are black; the anterior femora black half-way, obscure yellow further on (fig. 8); the intermediate femora are two-thirds black, and obscure yellow for the remaining third; those of the posterior pair are black, having the knees obscure yellow. The remaining parts of the legs of the first and second pairs are obscure yellow;

those of the posterior pair being more blackish, especially at the tarsi. The length of the insect hardly reaches 5 millimetres.

Fig. 9 represents the very simple saw and ovipositor.

On being touched these insects do not generally fly away, but draw in the antennæ and legs against the ventral surface, and, rolling along the leaf, allow themselves to drop to the ground, where they remain still for a few moments, until they think the danger has passed.

The parasite, which I obtained from the cocoon, was an undescribed species of Ichneumon, belonging to Gravenhorst's first section, having the scutellum and abdomen entirely black.

Cladius uncinatus, *Klug.*

Imago:—*Hartig, Blatt-und Holzwespen*, p. 176, No. 3.

Cladius ater subnitidus, pedibus rufo-flavis, exceptis coxis, apophysis omnibus, nec non parte antica femorum anteriorum, quæ nigra sunt, articulis tarsorum ultimis et alis nigricantibus.

As long ago as 1844 I published a description of the larva of this species in the 'Tijdschrift voor natuurlijke geschiedenis en physiologie' (vol. xi. part 2). Since that time I have nearly every year met with the insect in the month of September, and observed some varieties of the larva; but I have not as yet been able to find the larva in its earliest stage, all those which I have seen being full grown. I imagine the young larvæ live at the tops of old elm-trees, and that only at a late period of their lives do they descend the stems: if this be so it is only by some chance that we can become acquainted with the earliest stage of the larva.

The full-grown larvæ are to be met with in the month of September on the stems of the elm, where they spin up in the crevices of the bark. They are also frequently to be met with on stone posts standing among elm-trees: thus I find them every year in some numbers on the stone posts along the sides of the road between Leyden and Leijderdorp. Plate 4, fig. 1, represents a larva, magnified. They are yellowish clear green; 1.5 centimetre long, and rather broad in proportion to their length. Head very pale green, with a brown or black square spot on the vertex; this spot is divided into two equal parts by a fine pale green line. The eyes are black, and placed in round black or brownish spots; on the clypeus is generally found a small blackish irregular mark; the trophi are brown, varying in tint; the upper surface of the head is thinly hirsute (fig. 3). The whole body is flatter and broader than is generally the case with sawfly larvæ. Along the back is a dark line caused by the dorsal vessel being seen through the skin. Along the sides of the body on each segment are two projecting elevations, of which the anterior is the larger; both have a few long white hairs (fig. 2). There are altogether twenty legs, the anterior being glassy green, and, as shown in fig. 4, consisting of five joints. The first joint is round and thick and proceeds in a vertical direction, the rest are more or less horizontal; on the under side of the second are four setæ; the third has a thick fleshy knob in the same situation; the fourth is cylindrical; the fifth consists of a little knob having a pretty large horny claw of a brown colour. On the superior surface of the leg are five setæ. The abdomen is furnished with six pairs of green membraneous legs, and there are two anal legs on the last segment. Above the anus is often, but not invariably, found a brown spot. The varieties of the larva are of a reddish or grayish colour, with darker heads.

As before stated, they spin up in cracks or crevices of the stem: the cocoons are double, the outer case being of a loose texture, greenish or yellow, and having something of the appearance of dried sputa, the interior one being thicker and of a pale reddish colour (figs. 5 and 5 *a*). The larvæ remain concealed in these habitations through the whole winter, and, disengaging themselves of the thin outer skin, change in spring into little shining glassy pupæ, from which the imagos appear in the beginning of May, or sometimes as early as April, and may be seen, during sunshine, flying about the stems of the elm-trees. From this we may conclude the larva in question feeds on the leaves of the elm: I do not know whether there is more than one brood in the year.

Both sexes of the imago are black; the thorax sparsely covered with short gray hairs; palpi pale red; legs reddish, having, however, all the coxæ, the apophyses, and the bases of the four anterior femora black; the last two joints of the tarsi are blackish. In the male the wings are also blackish, paler in the female, with the costa and stigma gray. The length of the male is 6 millimetres, and of the female 7 millimetres. A further distinction between the sexes is found in the structure of the antennæ, those of the female being simply setaceous and barely perceptibly hirsute (fig. 7); in the male the third joint is prolonged underneath into a hairy protuberance, and the succeeding joints are furnished on the lower and inner sides with black projecting hairs.

The ovipositor (fig. 10) in this species is short and compressed, thick, and curved like a pruning-knife; the saw (fig. 9) is a little shorter, and composed of flattened segments, which are notched at the sides, where they move one over the other, and have each, on the under side, a little knob and a tooth.

The eggs, which I took from the abdomen of the female, were deep yellow, long and reniform.

It seems to me that this species is more especially peculiar to this country, as I find it mentioned in Hartig's work only, and he states that he had seen but two examples. It is, however, very possible that it is abundant in England, and is one of the species named, but not described, by Stephens (see Curtis, Brit. Ent. No. 457).

Campoplex argentatus, *Grav.*, has appeared with me as a parasite on this insect.

Note on Earwigs.—I have never known these pests of the garden more numerous or more destructive than they have been this season; nothing seems to have come amiss to them. Apricots, a plentiful crop, have been especially favoured by their attentions. A small hole was generally drilled from the top of the fruit down to the stone, and down this small hole, just large enough to admit of their passage, the happy pair passed into the interior of the fruit to revel in plenty. Unless carefully examined it is impossible to detect the injury until the apricot begins to rot, which it does rapidly after the insects have eaten the pulp round the stone. Behind some of the fruit a complete colony could be found, being, I suppose, the parents and their brood. I found behind a nectarine a colony consisting of twenty. The cast-off skins of the young were often found in the apricots. Double hollyhock-flowers are favourite resorts of the earwigs, amongst the petals of which they lie hid, and I have little doubt that they prey upon Hymenopterous insects that come to seek food in the flowers, for I have frequently found such insects stuck in the flowers, minus the head, and I never found them so stuck but I found two or more earwigs in the same flower. I have paid great attention to earwigs for the last four years, and I believe them to be very loving and attentive to their young, who follow their parents about as chickens follow a hen, and they keep together, unless forcibly broken up, from their birth until the next spring.—*John Ranson; York.*

The Greater Horse-shoe Bat (Rhinolophus ferrum-equinum) *in Dorsetshire.*—Our knowledge of the distribution of the British Cheiroptera is so imperfect that it seems worth while to record any new station where the several species are observed. While on a visit to a relative at Tomson Manor House, in Dorsetshire, at the end of September, I found a large bat flying round my bed-room one night when I went to bed. The room, a fine Elizabethan chamber, was sufficiently large to observe its character of flight. From the size of the bat I at first thought it a Noctule, which I have repeatedly shot on Tomson Manor; but its flight was feeble and slow in comparison with that of the latter bat. Without much difficulty the bat was secured: it proved to be a large male "greater horse-shoe." The measurements exceeded those given by Bell, as the span from tip to tip of the wings was 14⅛ inches. The fur was of a slaty-gray, darker above than beneath, and altogether destitute of the reddish colour described in books. I could discover no trace of the inguinal mammæ said to exist in this species. The individual being a male, they would of course be very diminutive; but I could find no indication of their presence. On a subsequent evening I saw several bats of about the same size flying round the house: they were probably the same species; they flew comparatively slowly, feebly and in short courses, and about fifteen feet from the ground. Tomson House is an old Tudor structure, which, with its many out-buildings, is admirably adapted for bat haunts; indeed, I know few places where bats are so numerous.—*James Salter*; 1, *Plowdon Buildings, Temple.*

Notes on the Nesting of Birds in the Flat-lands of Essex.

By VINCENT LEGGE, Lieut. R.A.

Redstart. — This bird is very plentiful about here, frequenting particularly those parts where the pollard-willows most abound. Fond as they are of nesting in old stumps and trees, they have a special predilection for the pollards, which, full of holes and cavities, afford a capital situation for breeding. I never saw them so plentiful in any part of England, and most probably it is on account of the numbers of these trees, which line the ditches in the marshy districts, that they are so common here. They prefer a cavity with a good sized entrance, and place their nest in the back of it: these vary very much in construction, according to the nature of the hole, some having a great deal of foundation and body, others being very slightly made, with not much more material than one finds in the nest of an oxeye: it is of shallow form, and in most instances rather loosely put together. The body and foundation are made of dried grass, small fibres and roots, and the interior of wool, lined with horse-hair; a few feathers were intermixed with the hair in one or two nests. The prevailing number of eggs in a great number I found was five; in some there were six, and in others four: they are 8½ lines long by six broad; and, though generally of a delicate green, some are nearly of as dark a colour as those of the hedgesparrow; they were laid this year, for the most part, by the last week in April.

Pied and Yellow Wagtails.—Great numbers of both these wagtails frequent the low cultivated and marsh-lands of this coast. They may be seen darting about, and following the course of, the ditches in search of insects, or hovering over them in the vicinity of their nests. They both, especially the yellow wagtail, nest in the sod-banks of the water-courses, and on the approach of an intruder, circle round his head, uttering their note incessantly, endeavouring to their utmost to draw his attention away. The nest of the latter is consequently rather difficult to find. The nest of a pied wagtail, containing six eggs, was found near here, situated in an indention in the trunk of an ivy-clad tree, at a height of ten feet from the ground; and the nest was made of the same materials employed in its construction when built in a hole in a wall or in the ground. One egg is 9½ lines long by 7 lines broad.

Wheatear.—This handsome bird is very plentiful, frequenting the flat wastes and uncultivated lands. They build here in the holes between dry sods or in deserted rabbit-burrows. The young birds of the year are very plentiful on the marshes in August, and may be seen in all directions, perched on some stone or clod, bowing and cocking their tails in their quaint manner. They leave about the second week in September. I found one nest, at some height from the ground, placed in a hole between the frame-work of a door-way and the sods of an earth-work; on approaching the hole the young would leave the nest and hide themselves in the interstices of the sods. The eggs, which are five and six in number, do not vary much in size; they are 9 lines long by 7 broad, and are laid about the middle of May.

Sedge Warbler.—This is one of the commonest of our warblers here, frequenting the reedy ditches of the low-lands, and situations where there are bushes, brambles and sedge, in the vicinity of water. They resort particularly to dykes which are lined with the wild sloe, which grows in great abundance in Canvey Island and other flat lands in the vicinity. They build in the sloe, in preference to any other bush. In its curious little warble it imitates, in quick succession, the sparrow, the lark and the swallow, but seems to have a decided preference to the twitter of the first-named bird: at the first and second week in May they begin to build, and though the nest is generally close to the water, I have found it at a distance of forty or fifty yards from the edge, where there have been willows or other suitable herbage. Out of about two dozen nests, found in the course of a few days, seven of them were built in almost exactly the same manner and position as those of the reed warbler (*Sylvia arundinacea*). I noticed this material difference, however, in the position chosen by the two species in question, *viz.*, that, whereas the reed warbler invariably builds in the reeds some distance from the edge of the water, the sedge warbler resorts to those at the side, where there is always an abundance of dead grass to afford a little cover. Those formed in this position were among the dead reeds and tangled grass which line the banks of the dykes in the spring. There was generally a little tuft of this material overhanging the nest, so as to screen it from sight, and sometimes a little underneath to form a foundation, but the outer edge of the nest was wound round the reeds, exactly in the same manner as that of S. arundinacea: these nests were built of dry grass, put together in rather a frail manner, and were quite different from those built in young willows or low bushes, which generally contained a good deal of moss, were much shallower and far more bulky. I mention these few facts because the difference in construction was remarkable, and because some people assert that S. salicaria does not build in reeds. The prevailing number of eggs is five, and these vary much in size, some I have 8¾ lines long by 6½ lines broad, while others are 7¾ lines by 6 lines. Though they vary a little in colour they all have the little dark streak at the larger end. A nest found near here was accidentally cut down by a boy who was thinning an osier-bed; he placed it in a young willow, some distance off, and the next day I found the old bird sitting as closely as if the nest had never been disturbed.

Reed Warbler.—Great numbers of this lively little bird frequent the reeds, which grow in great profusion in the dykes intersecting the marshes in the vicinity of this coast. They are very plentiful in Canvey Island, and thread their way among the reed-beds, hopping from one stalk to another with great rapidity. About the 15th of May they begin to build. It would not perhaps be superfluous to say a few words about the beautifully constructed nest of this clever little architect: it is suspended in the reeds, fixed generally to two or three of them, at a height of eighteen inches or two feet from the water, and, as far as my experience goes, is always placed over the centre of the ditch—that is, three or four feet from the edge. I have found half-a-dozen in a space of a few hundred yards, and I observed that this rule was never departed from. The structure is very deep for its width, the interior measuring 2½ inches deep by 1½ inch in breadth; this precaution being taken to prevent the eggs rolling out when the reeds are swayed to and fro by the wind. The materials used are fine dead grasses, mixed with a little wool, which is used mostly to finish off the top of the nest, the whole being woven together very compactly. The bottom of the nest extends downwards to a considerable depth, giving the whole an oblong form. A few of the outer blades of grass in the structure are twined round three or four reeds in such a manner that, though these form ample support for the nest, they fall out when gently pulled after it is cut down. One nest was found in a flowering thorn, fixed by two thick arms of grass beautifully wound round two small branches which hung over the water, about eighteen inches from its surface. This was a much more solidly built nest than any other I found. It is almost impossible to find the parent bird sitting on the nest, for on the approach of any intruder they spring, something after the manner of a mouse, from it, hop from reed to reed till they arrive at some distance, and then break forth into a little warble. The eggs vary sometimes from the usual greenish white to a brownish white ground, and some have not the black irregular spots which are generally to be found at the larger end: they are from three to four in number; in a few instances, five.

Sky Lark.—The stubble-lands and low-lying fields literally swarm with larks at this season of the year, and they are just as plentiful at spring time. They resort very much to the "saltings" (land covered with rank herbage lying between the embankments and the shore, and covered at spring tides), roosting there at nights. They may also constantly be seen at some distance from the shore, picking up sandworms on the fore-shore after the tide has left it. I have never seen Alauda arvensis resort so much to the sea-coast as it does here. They build here, as at all other places, late in the season, and though their nests are so numerous they are yet somewhat difficult to find. On frightening the female from her nest, she flies along the ground for some distance before she mounts into the air. One morning I started a lark from beneath a coltsfoot-leaf, and on examining the spot found an egg deposited in a hole scratched in the earth, the nest not having been begun; a few days afterwards it was finished, and contained three or four eggs. Some eggs are of a very light ground-colour, lightly and sparingly spotted, after the manner of a sparrow's egg, while others are as dark as those of the titlark, with sometimes a faint streak at the larger end.

Titlark.—Very plentiful, particularly near the shore, although they are as much at home on the mountain-top as they are in the meadow. They nest here in the grassy banks or on the side of any eminence, if it be covered with thick herbage. They build the first week in May, and lay from three to five eggs.

Reed Bunting.—Common in the marshes, and builds in the banks of the dykes, as also on the ground in wet places; the nest is placed under a tuft of grass: when in the latter-named situation the foundation is very thick and compactly put together to keep out the moisture: a good deal of hair is used in the lining.

Linnet.—Next to the lark, there is hardly any bird so common on this coast: they frequent the sandy ground near the shore, feeding on the seeds of the rank herbage which grows on the "saltings." They nest here in great numbers, and build sometimes within half-a-dozen yards of the shore, in the brambles growing on the sea-walls. Their nests may occasionally be found at a considerable height from the ground.

VINCENT LEGGE.

South Shoebury, October 25, 1865.

Ornithological Notes from the Isle of Wight.

By Capt. HENRY HADFIELD.

(Continued from page 9726).

AUGUST, 1865.

Swift.—August 4. A pair of swifts seen about the lofty spire of our new church, but whether nesting there I have not ascertained: I never knew them breed in this neighbourhood.

Martin.—August 5. The young must have flown either yesterday or to-day, as three heads were seen peering out on the 3rd. Though twenty pages are devoted by Macgillivray to the description of this species, he says nothing of the number of days taken in laying and incubating, but tells us that the construction of the nest occupies from six to ten days; however, that must be under peculiarly favourable circumstances, my observations leading me to believe that about double that time is spent. On this occasion the nests, though half-finished when first observed on the 7th of June, were not completed till the 14th, if then, for I was doubtful of their being lined.

Gray Flycatcher.—August 5. Observed a number of these flycatchers collected in a sheltered nook on the northern side of the down, chiefly on the lower limbs of the ash.

Tree Sparrow.—August 5. Observing several sparrows nests among the matted branches of some lofty old fir-trees near Wroxall Farm, I watched the birds, and feel pretty confident that a handsome old cock bird seen was a tree sparrow, a species that I have never met with in the under-cliff.

Nightingale.—In my July notes (Zool. 9725), an instance of the longevity of a caged nightingale was recorded; but I purposely omitted to state that it had learned to talk, as too wonderful for general belief, though I had faith in it, my informant being a highly respectable and trustworthy person, a resident in the place, and one who could have no object in deceiving me. I am now emboldened to speak out, seeing that Buffon (vol. ix. p. 135), thus refers to a talking nightingale, "Enfin ils apprendront à parler quelle langue on voudra," &c. My neighbour's bird knew and welcomed its owner, and had learned, from a parrot, to say "Pretty Polly," "Kiss me, Polly," and other endearing expressions. I also find my remarks on the perching of the American snipe indirectly confirmed by Buffon, who says (vol. viii. p. 281), "La plupart des oiseaux qui ne se perchent point en Europe, et qui demeurent toujours à terre, * * * se perchent en Amérique, et même les oiseaux d'eau a pieds palmés que nous n'avons jamais vu dans nos climats se percher sur les arbres, s'y posent communément."

Kestrel.—August 7. Four of these hawks observed together on our downs, seemingly all of one family.

Chiffchaff.—August 8. A chiffchaff or two seen. None before observed since April.

Goldfinch.—August 8. Saw a flock of goldfinches: they were mostly young birds, yellow on the wings, but with no red visible on the head.

Yellow Wagtail.—August 21. Both to-day and on the 18th some fifteen or twenty young wagtails were observed in a pasture-field, following the horses; though I could not venture to shoot any I have no doubt of their being birds of this species: their small size and the yellowish gray colour of the sides and under parts prove them to be so. A pied and a gray-backed bird or two having alighted among them enabled me to judge of their relative size, and they were quite dwarfed by it, proving, too, that they could not be the young of the gray wagtail, which is not only larger but differs in plumage, and is a species not generally met with at this season in the island. The flight of the yellow wagtail is more undulating and graceful than that of the pied and white species. Though there were several cows in an adjoining meadow the yellow wagtails never left the horses, but followed them closely; now squatting among the grass, then running to and fro beneath the horses, taking the flies from between their legs and from off their noses, and darting after those disturbed by the trampling of the animals, which are seemingly aware of the service rendered them, for they never, by switch of the tail or toss of the head, drive away the wagtails, but allow them to crowd about their noses and legs, so that they appear in danger of being injured or trampled under foot. One of the gray-backed birds first alighted on a tree, then in a hedge.

White Wagtail.—Though I might have shot the adult light-coloured birds when nesting, there is now a difficulty in procuring specimens, there being so many young gray-backed wagtails; but one shot on the 3rd of August differs from the rest, and the bill is shorter, proportionally, slighter and straighter, though the first distinction is not always to be relied on, "birds bills, like men's noses, varying in length," as I once was facetiously told by a northerner. The tail-feathers are remarkably narrow, and the third has no white margin, as in the pied species. Both primary and secondary quills are externally margined with white, the inner ones broadly. The measurements are not given, the bird not being full grown. This may or may not be the young of the white wagtail, but I feel confident that the adults observed in June were not of the pied species, unless they breed in the immature gray plumage. We are not always happy in our nomenclature, and the wagtails are perhaps the most absurdly named of all; for instance, "dish-washer," "oat-seed bird," &c.; and then the gray-backed bird is called the *white* wagtail, and a yellow wagtail the *gray*, but why I never knew, till seeing it explained by Buffon as a "dénomination peu exacte, et qui vient originairement de Willughby, qui reconnoit lui même n'avoir décrit que la femelle."

Willow Wren.—August 22. The yellow wren, though but lately returned, is to-day swarming in our gardens, so that the trees seem alive with them: they are, I believe, mostly birds of the season, being duller in plumage and shorter in the tail than the adult. This species usually congregates here before the autumnal migration, but its stay in the under-cliff, on its arrival in the spring, is of short duration.

Robin.—August 25. Robins are beginning to return to the gardens in and around the town.

Brown Buzzard.—August 30. When strolling in my garden this morning I was astonished at seeing two large rapacious birds, at a great height, in the distance, and whose soaring and wheeling flight reminded me of the kite and the roughlegged buzzard, both species well known to me, but on their nearer approach, though still at a considerable altitude, I found, on examining them through a glass, that they were neither kites nor roughlegged buzzards, but brown buzzards. The larger bird (or female) was of a dark brown, both above and beneath; the smaller one of a light brown on the back, whitish beneath the body and wings, the latter appearing barred and mottled, but the central part white. So much do they differ, both in colour and size, that they might readily be taken, in the distance, for birds of different species.

Green Woodpecker.—I find (Zool. 9720) that Mr. Newman is still sceptical as to the woodpecker having been seen in the island, though I can have no doubt of it, after the circumstantial statements I received at the time as to size, colour, manner, &c., but I will endeavour to get further information. Nor do I see why its crossing the sea should be thought so improbable, considering that the Solent, at its narrowest part, is less than two miles across, a distance some of us islanders could readily swim.

SEPTEMBER.

Swallow.—September 2. At 6 P. M. saw a flock of swallows at Luccombe; they were mostly young and immature birds, only two or three being observed with forked tails. They were taking their evening's repast from off the flies collected about a clump of trees at the top of the Chine, in which they were doubtless about to roost, as their habit is at this season. It is worthy of remark that this assembling of young swallows has taken place at the same period, within three or four days, as last season. 17th. On going into the garden at 8.30. A. M. found innumerable swallows in rapid flight to the eastward, against a head wind, accompanied by comparatively few martins, though the young short-tailed swallows might, by the casual observer, be readily taken for them; their flight, too, being less rapid and buoyant than that of the adult, and not unlike the wavering course of the martin. So hurried was the flight that little time was allowed for hawking; but, strangely enough, a feather floating in mid-air was caught up, in mere sport I think, by three or four birds in succession, and no sooner released by one than it was snapped up by another. This migratory stream was but two or three hundred yards in width, and following the coast-line. The flight of the swallows is so low, that in passing over the ridges of the broken and undulating surface they would skim the ground. Together with swallows and martins occasional flocks of small birds would appear, though quickly distanced by them; but the flight of some was very rapid, perhaps none more so than that of the willow wren. The white wagtail was of the number; the wheatear, too, I believe, and other birds; but it was difficult to identify any, on account of the confused and rapid flight under a bright sunshine. Towards 11 o'clock I noticed, near Bonchurch, a number of swallows alighting on the elms, the upper leafless boughs being preferred: they were mostly birds of the season, and apparently fatigued, having probably been on the wing from an early hour. That it is not cold that causes the general move, or migration, I have only to state that the thermometer this morning at 8 o'clock was 68°, and at mid-day 74°. That this gathering is preparatory to their migration there can be no reasonable doubt; but they may linger for a while on the southern coast, should the weather prove favourable. 18th, 9 A. M. Swallows and martins are again passing, but in greatly diminished numbers, the former exceeding the latter in the proportion of about ten to one: the flight of the martin is less rapid and direct, and that of the young somewhat laboured. 21st. Only a few swallows seen, but a large flock of martins passed over the town this morning in an easterly direction, flying very high, and hawking by the way, seemingly enjoying the slight shower. The thermometer was 66° yesterday at 9 A. M.; this morning but 55°, and it would appear that this sudden change of temperature was anticipated. Though yesterday was one of the finest and hottest days of this the hottest of seasons, I observed towards sunset a small white misty cloud gathering on our downs, leading me to expect a change; but the instinct of birds is something wonderful and incomprehensible. 23rd. Some swallows and a few martins seen this morning in rapid flight to the eastward; wind still easterly: thermometer, at 9 A. M, 58°. 25th. Some swallows and martins have passed to the eastward to-day, and several of the former were seen yesterday, resting for a time on the leafless branches of the trees. 30th. A few swallows and martins continue flying to the eastward. Although it may be thought somewhat strange and inconsistent in one who has so often recorded the presence of swallows and martins in the island in November, and even December, I must nevertheless say, after an experience of many years, that I have come to the conclusion that the first migration of both species takes place in September, which I will endeavour to prove by extracts from some of my journals. But it may be questiomed whether these flights are really migrating. I would answer this by other questions,—What becomes of these flocks? where do they—where can they—halt? If anywhere, it must be on the coast of Sussex; so possibly your correspondent, Mr. Jeffery, who is in the line of flight, may enlighten us. Besides, if not migrating, how comes it that these autumnal flights are invariably to the eastward? *Notes.*—"1852, September 10th. There are to-day some hundreds of swallows congregated in our garden. 24th. Remarked that hundreds of swallows had collected on the roofs of the houses on the edge of the cliffs, where I have observed them annually assemble." A few days later numbers were seen near Gosport, crowding the telegraph-wires. "1853, September 17th (the same date as this year). Observed that hundreds of swallows had assembled on the houses near the cliffs, not only the roofs of which were covered, but the chimneys too, and scaffolding." "1855, September 10th. Saw innumerable swallows and martins; and at about ten o'clock a great number of swallows assembled on the roofs and chimneys of the houses on the cliffs (their usual resort)." "1863, September 6th. Swallows commenced congregating on our coast." "1864. A considerable flock of swallows had appeared here by the 29th of August." In remarking (Zool. 9434), "Swallows and martins remained in the under-cliff fully a month later than in the neighbourhood of York," I did not mean that the first migration is so much later; for, with regard to that, there is seemingly little difference, as your York correspondent, writing on the 1st October, says (Zool. 9328), "I have not seen one for above a week;" this date corresponding with that of the first migratory move along the southern coast.

Martin.—September 4. Though the first brood of martins did not leave the nest till the 4th or 5th of August, I find that the old birds are rearing another progeny, having watched them to-day feeding their young, which can be but lately hatched, as they have to creep into the nest to feed them. There is another nest of young martins under the same eaves, and a third on a neighbouring house. Macgillivray says that two broods are "sometimes raised;" but here is an instance of three pairs rearing two broods each, though the first did not fly till the first week in August—a pretty good proof that two broods are generally reared in the south. A contributor to Macgillivray's work (p. 589, vol. iii.), says, "The second brood is generally abroad by the middle of June;" but this I believe is rather the exception than the rule, even in the south of England. However, this species was unusually late in breeding this season, and the three pairs under observation had nests to build as well as furnish. 27th. The last of the young martins has taken wing: I was prepared for this, having yesterday afternoon observed the old birds endeavouring to entice them out by flying round and about the nest; occasionally making a feint, as if about to feed them, and after soaring at the opening suddenly disappearing. One is not surprised at the young hesitating to take the plunge, their powers of flight yet untried. I find to-day both the old and young birds flying about the neighbourhood, and one of the latter entered the nest. The young were easily distinguished by their smaller size, greater whiteness and peculiar flight, not darting and wheeling about like the adults, but soaring in narrow circles around the building. 28th. Neither the young nor the old birds have been seen about the nest to-day. 30th. Though I have been daily on the watch, neither the young birds nor the old have been again seen near the nest, nor do they resort to it to roost.

Nightjar.—September 9. One seen on the sea-cliffs near Luccombe, about 7 P. M.

Bluethroated Warbler.—September 18. Observed, at 6 P. M., near Bonchurch, the bluethroated warbler taking a bath in the road-side brook; it stood knee-deep in the stream, where it continued to dip and splash about the water till disturbed by the passing carriages, but always returning to renew its ablutions, though constantly interrupted by foot-passengers, too, not one of whom as much as noticed it. A robin having alighted by the stream, a fight ensued, when the latter was speedily discomfited and driven away. After its bath, perched on a birch overhanging the brook, it was for some time engaged in preening its feathers. It was found to-day within twenty yards of the spot where originally seen, and from what I hear it seldom wanders far from the pond: that it is the same bird there can be no doubt. Though its song was occasionally heard, it was not so prolonged as in the spring. In a former note I remarked its comparatively small size, and still think it fully a third less than the redbreast, and a much more active and restless bird. The tail, which has been renewed, is now perfect. It is much to be regretted that it has no partner; but as to its pairing with the common robin, that seems hopeless, as they are for ever fighting. Could a female be found I should have little doubt as to their breeding or becoming naturalized.

Brown Linnet. — September 23. About sunset a flock of some hundreds of linnets rose from a withy-bed, where I have lately observed them alight to roost; but to-day the flocks had united, and when disturbed continued their aërial manœuvres till they succeeded in regaining the cover. This early flocking together is somewhat remarkable. A wheatear seen on the cliffs.

Yellow Wagtail.—September 25. A small migratory party of these elegant birds was seen flying to the eastward. Several had previously been observed taking the same course.

HENRY HADFIELD.

Ventnor, Isle of Wight, September 30, 1865.

The Lesser Kestrel at Cambridge.—I learn from a correspondent at Cambridge that a specimen of the lesser kestrel (*Falco cenchris*, Naum.) has been placed in the hands of that well-known naturalist, Mr. Baker, for preservation: I hope Mr. Newton will examine the bird and report: it is the first instance of which I am cognizant of the occurrence of this species in Great Britain.—*Edward Newman.*

Osprey near Exeter.—A fine specimen of the osprey was shot in the estuary of the Exe by Mr. John Seward, poulterer, Exeter, on Wednesday. It measures from tip to tip of the wings 5 feet 6 inches. It is in the possession of Mr. James Truscott, naturalist, 2, Bartholomew Street, to be preserved, where it can be seen.—*Exeter and Plymouth Gazette, October* 6, 1865. [Communicated by the Rev. M. A. Mathew.]

The Great Black Woodpecker.—I have long known that a specimen of the black woodpecker came into the possession of the late Mr. Newton, of Mellaton House, near Okehampton, Devon, and I have been informed from time to time that it was obtained from the immediate neighbourhood which borders on the north outline of Dartmoor. Mr. Newton brought together a very large collection of British birds, and he used to communicate everything of interest to the late Dr. E. Moore, of Plymouth, who published a Fauna of Devonshire Birds, for various societies. The Rev. Mr. Rowe, of Crediton, when he published his work on Dartmoor, obtained from Dr. Moore several particulars of the Natural History of Dartmoor, and the following remark appears respecting the specimen alluded to:—"Great Black Woodpecker (*Picus martius*): a specimen is in Mr. Newton's collection, which was shot near Crediton." Mr. Newton's son, Mr. J. G. Newton, has obligingly communicated these particulars to me, and he concludes his letter by saying, "I may remark that my bird is a female, having the crimson colour only at the back of the head."—*Edward Hearle Rodd; Penzance, October* 24, 1865.

Note on Hybrid Doves.—Two years since I bred in an aviary four hybrids between two males of our wild turtle dove and two female collared doves (*Risoria*); they were fine handsome birds, larger than their parents, but unfortunately all four turned out males. Last year I paired off a wild male with a female of the pure white dove, which I take to be only an albino variety of the Risoria. The result was a pair of hybrids slightly lighter in colour, but otherwise similar to the four of the last season. This year I paired a male of these last birds with a white female, breeding back again towards the tame species; the young obtained were again like both former sorts of hybrids, only with a still lighter tint of plumage. In the two first pairings the wild male bird took no part whatever in incubation; in the third and last the male hybrid took his share in both nesting and feeding. I will only add that these birds, old and young, are exposed to external air throughout the winter, and I have never yet lost a bird through illness or disease.—*Robert Mitford; Hampstead.*

Note on Lord Clermont's Enquiry respecting the "Sedge Warbler or Reed Wren at Twickenham."—I saw, in the September number of the 'Zoologist' (Zool. 9729). that Lord Clermont asks for information regarding a warbler, with a song like the reed warbler, living away from water and breeding in and frequenting lilac and other shrubs in gardens. If Lord Clermont will look back to the July number of the 'Zoologist' for 1864 (Zool. 9109) he will find a description of the habits and nesting of this bird in my own garden. I was very unwilling to destroy these poor birds, although very curious to determine the question of species. I let them rear their young, and then all depart in peace. But this year, in July, finding two pairs inhabiting a nursery plantation of young lilacs, I obtained permission and shot the two male birds, both in the act of singing. The females I did not see, as the top of the shrub was such a dense and close mass of foliage that, but for the song of the males, I should not have discovered even them. I afterwards succeeded in finding two nests, similar in structure and similarly situated to those of the previous year in my garden, from both of which the young had evidently flown only a few days previously. The birds were not in good order, but just beginning their summer moult. I so arranged the matter that at the time I shot these birds I received from Romney Marsh fresh-killed specimens of the true reed warbler, shot in the reeds of the fen-ditches, and, on comparing the two birds in the flesh together, I have little hesitation in saying that the inland warbler is not our reed warbler. I will not enter into the chief points of difference at present, as I hope next May to get a specimen or two in fine plumage.—*Robert Mitford; Hampstead.*

The Ruff on the Northam Burrows, North Devon.—On the 11th of September I saw a ruff shot on the Northam Burrows. It was a bird of the year.—*Murray A. Mathew; Weston-super-Mare, October* 9, 1865.

Curlew Sandpiper at Kingsbury Reservoir.—On the 2nd of September last, at Kingsbury, my brother and I found a pair of these somewhat rare visitors to the Reservoir: one was killed by my brother without any difficulty; but the second joined company with a ringed plover, and together they led us up and down the water many times, till at length the sandpiper passed me within range, and was bagged. These birds were in the transitional plumage, and still retained, in some degree, the russet throat and breast of their summer dress.—*W. H. Power; Queen Square, Bloomsbury.*

Temminck's Stint near Rainham, Kent.—Two specimens of this species of stint were obtained by my brother and myself on the marshes between Rainham and Otterham, on the 9th of September last: we were sitting upon the sea-wall, when, hearing them utter their cry as they swept up the creek, we had just time to secure one each as they passed.—*Id.*

Crane at Stallford.—I have received from Mr. Haddon the following particulars of a crane, which was shot by him on Tuesday, the 17th of October, at Stallford, near the Bristol Channel. It measured 4 feet 11 inches in length from the toes to the tip of the bill, and 6 feet 10 inches from tip to tip of the extended wing: the weight was 7¾ lbs. It is evidently a young bird of the year.—*Cecil Smith; Lydeard House, October* 21, 1865.

Sacculina Carcini, Rathke, *on the Devonshire Coast.*—I have much pleasure in adding this remarkable and interesting parasite to the Devonshire Fauna. Several specimens of the female only I met with on the only vulnerable part of Carcinus Mænas, *viz.* under the tail, and I only found them on the males. I examined the contents of the ova sac under a one-eighth objective, but could not resolve the contents into anything but oil-globules (incipient eggs?). I find, however, by examining a specimen preserved in spirits, so that the tissues had become a little hardened, that the eggs have apparently a double coat. I find also amongst the eggs certain sacs containing several eggs in different stages of development. The eggs are perfectly round, and are filled with a pale yellowish semipellucid mass. Sacculina Carcini has been found attached to C. mænas at Bohuslän, as well as on the coast of Norway: the Rev. A. M. Norman has also dredged it off Berwick attached to the pleon of Portunus holsatus (see 'Record of Zoology,' 1864, p. 310.)—*Edward Parfitt; Devon and Exeter Institution, Exeter, October* 27, 1865.

6 FE66

LONDON: EDWARD NEWMAN, PRINTER, 9, DEVONSHIRE STREET, BISHOPSGATE, N.E.

Ceuthorynchus suturalis of Fabricius on the Welsh Coast.—I have the pleasure of sending you a notice of a splendid Ceuthorynchus, new to Britain, which I have recently determined.

CEUTHORYNCHUS SUTURALIS, *Fab.*

Curcul. suturalis, *Fab. Ent. Syst. Eleut.*, vol. i. p. 20, sp. 80.
Ceuthorynchus suturalis, *Gyll.* 8, 132. *Schon. Syn. Ins. Curc.*, Genus 577, sp. 5.

The Fabrician description is,—

> "Longirostris, ovatus, fuscus; lineâ longitudinali albâ; corpus parvum, rostrum arcuatum nigrum. Thorax fuscus lineâ dorsali albâ. Elytra striata gibba; suturâ albâ. Subtus cinereus."

It appears to live on the sallow in Germany and France, but to be rare. Amongst Walton's types in the British Museum is an identical specimen sent to him under this name by Germar. It is rather a large species; my specimen is about the size of C. inaffectatus, or a large C. sulcicollis. It belongs to the first section, the posterior femora not being dentate, and is *at once* distinguished thoroughly from every other by the *broad line of white scales extending from the nape of the neck to the apex of the elytra.* Taken by my friend Mr. Joseph Sidebotham, of Manchester, last spring, on the Welsh coast, "crawling on the sand."—*John A. Power*; 52, *Burton Crescent, November* 18, 1865.

To Entomologists.

T. LAST, BOROUGH ROAD, IPSWICH, has FOR SALE the following INSECTS, well set and in fine condition, captured by himself this season:—

PERFECT INSECTS.—A. Adippe, 2d.; L. Ægon, 2d.; T. Rubi, 4d.; S. Alveolus, 2d.; N. Lucina, 3d.; A. Atropos (bred), 1s. 6d.; S. Ligustri, 6d.; N. cristulalis, 3d.; N. senex, 4d.; Z. trifolii, 2d.; L. complana, 6d.; E. versicolor (males), 1s. 6d.; A. prunaria, 4d.; A. promutata, 4d.; A. immutata (male), 1s.; N. pulveraria, 6d.; F. conspicuata, 3d.; M. hastata, 6d.; C. obliquaria, 4d.; P. falcula (male), 6d.; P. palpina (male), 6d.; N. dodonea (not first class), 1s.; C. Or, 6d.; D. Orion (last year's), 1s.; A. Ligustri (bred), 9d.; L. pudorina, 6d.; L. straminea (fine), 1s. 6d.; L. phragmitidis, 4d.; N. despecta, 4d.; N. fulva, 2d.; A. putris, 2d.; X. scolopacina, 4d.; D. pinastri, 4d.; M. anceps, 3d.; A. fibrosa, 6d.; A. gemina, 3d.; A. valligera, 4d.; A. nigricans, 4d.; A. aquilina (bred), 4d.; T. fimbria, 3d.; N. glareosa, 4d.; N. Dahlii, 4d.; N. plecta (bred), 2d.; C. affinis, 6d.; H. serena, 6d.; A. advena, 6d.; H. dentina, 3d.; B. Parthenias (male), 3d.; B. notha (male), 6d.

PUPÆ.—N. dodonea (each), 1s. 3d.; S. Ligustri (each), 3d.

T. LAST will be thankful to receive orders, which will be punctually attended to, and the Insects carefully packed.

British Insects.

MR. J. C. STEVENS begs to announce that he will Sell by Auction, at his Great Room, 38, King Street, Covent Garden, on Tuesday, December 12th, and following day, at half-past Twelve precisely, the VALUABLE CABINETS of COLEOPTERA and LEPIDOPTERA belonging to the Rev. HAMLET CLARK, who is giving up his British Collections; also the choice Collection of BRITISH LEPIDOPTERA, formed by Dr. B. GILL; and the CABINET of BRITISH LEPIDOPTERA belonging to Mr. PREST, of York, together with the Mahogany and other Cabinets in which they are contained; in all the above Collections many rare and valuable Species will be found, and mostly in first-rate condition.

Catalogues are preparing, and will be ready one week prior to the Sale.